CLAIMS

1. A process for purifying a product, said process comprising microfiltration of a fermentation broth containing the product at a microfiltration temperature within the range from 66 °C to 90 °C.

2. The process according to claim 1, wherein said microfiltration is performed in the absence of activated carbon.

3. The process according to claim 1, wherein the microfiltration temperature is within the range from 70 °C to 90 °C.

4. The process according to claim 1, wherein the microfiltration temperature is within the range from 70 °C to 80 °C.

5. The process according to claim 1, wherein the microfiltration is performed as a cross flow microfiltration.

6. The process according to claim 5, wherein the microfiltration process is performed with a vibrating microfiltration membrane.

7. The process according to claim 5, wherein the microfiltration process is performed with backshock.

8. The process according to claim 1, wherein the microfiltration process is performed using a microfiltration membrane formed from a material selected from the group consisting of natural polymers, synthetic polymers, ceramics, metals and mixtures thereof

9. The process according to claim 1, wherein the microfiltration process is performed using a polysulphone membrane.

10. The process according to claim 1, wherein the microfiltration process is performed as a batch process.

11. The process according to claim 1, wherein the microfiltration process is performed as a continuous process.

12. The process according to claim 1, wherein the microfiltration process is followed by an ultrafiltration process.

13. The process according to claim 12, wherein the cut-off value of the ultrafiltration membrane is lower than four times the molecular weight of the fermentation-derived product.

14. The process according to claim 12, wherein the cut-off value of the ultrafiltration membrane is lower than twice the molecular weight of the fermentation-derived product.

15. The process according to claim 12, wherein the cut-off value of the ultrafiltration membrane is lower than the molecular weight of the fermentation-derived product.

16. The process according to claim 1, wherein the microfiltration process is followed by at least one chromatographic step or at least one precipitation step.

17. The process according to claim 1, wherein the product is at temperatures higher than 60 C for less than 60 minutes.

18. The process according to claim 1, wherein the product is at temperatures higher than 60 C for less than 30 minutes.

19. The process according to claim 1, wherein the product is at temperatures higher than 60 C for less than 15 minutes.

20. The process according to claim 1, wherein the product is at temperatures higher than 60 C for less than 10 minutes.

21. The process according to claim 1, wherein the product is a protein.

22. The process according to claim 21, wherein said protein is a microbially derived protein.

23. The process according to claim 22, wherein the host cell producing said protein is selected from the group consisting of E. coli, Saccharomyces, Pichia, Candida and Kluyveromyces.

24. The process according to claim 22, wherein said protein is a pharmaceutical protein or a precursor thereof.

25. The process according to claim 21 wherein the product is a protein with a molar weight of less than 25000 Dalton.

26. The process according to claim 21 wherein the product is a protein with a molar weight of less than 10000 Dalton.

27. The process according to claim 21 wherein the product is a protein with a molar weight of less than 7000 Dalton.

28. The process according to claim 21 wherein the product is a protein with a molar weight of less than 4000 Dalton.

29. The process according to claim 21, wherein said protein is selected from the group consisting of glucagons-like peptide 1 (GLP-1), glucagons-like peptide 2 (GLP-2), glucagon, trefoil factor (TFF) peptides, interleukins, insulin, albumin, precursors thereof and analogs of any of the foregoing.

30. The process according to claim 29, wherein said protein is selected from the group consisting of human insulin, a human insulin precursor, a human insulin analog, a human insulin analog precursor, and Arg^{34}-GLP-1(7-37).

31. The process according to claim 29, wherein said protein is selected from the group consisting of Arg^{34}-GLP-1(7-37), Gly^{8}-GLP-1(7-36)-amide, Gly^{8}-GLP-1(7-37), Val^{8}-GLP-1(7-36)-amide, Val^{8}-GLP-1(7-37), $Val^{8}Asp^{22}$-GLP-1(7-36)-amide, $Val^{8}Asp^{22}$-GLP-1(7-37) , $Val^{8}Glu^{22}$-GLP-1(7-36)-amide , $Val^{8}Glu^{22}$-GLP-1(7-37), $Val^{8}Lys^{22}$-GLP-1(7-36)-amide, $Val^{8}Lys^{22}$-GLP-1(7-37), $Val^{8}Arg^{22}$-GLP-1(7-36)-amide, $Val^{8}Arg^{22}$-GLP-1(7-37), $Val^{8}His^{22}$-GLP-1(7-36)-amide, $Val^{8}His^{22}$-GLP-1(7-37), $Val^{8}Trp^{19}Glu^{22}$-GLP-1(7-37), $Val^{8}Glu^{22}Val^{25}$-GLP-1(7-37), $Val^{8}Tyr^{16}Glu^{22}$-GLP-1(7-37), $Val^{8}Trp^{16}Glu^{22}$-GLP-1(7-37), $Val^{8}Leu^{16}Glu^{22}$-GLP-1(7-37), $Val^{8}Tyr^{18}Glu^{22}$-GLP-1(7-37), $Val^{8}Glu^{22}His^{37}$-GLP-1(7-37), $Val^{8}Glu^{22}Ile^{33}$-GLP-1(7-37),

$Val^{8}Trp^{16}Glu^{22}Val^{25}Ile^{33}$-GLP-1(7-37), $Val^{8}Trp^{16}Glu^{22}Ile^{33}$-GLP-1(7-37), $Val^{8}Glu^{22}Val^{25}Ile^{33}$-GLP-1(7-37), $Val^{8}Trp^{16}Glu^{22}Val^{25}$-GLP-1(7-37) and analogs thereof.

31. The process according to claim 29, wherein said protein is selected from the group consisting of: K30R-GLP-2(1-33); S5K-GLP-2(1-33); S7K-GLP-2(1-33); D8K-GLP-2(1-33); E9K-GLP-2(1-33); M10K-GLP-2(1-33); N11K-GLP-2(1-33); T12K-GLP-2(1-33); I13K-GLP-2(1-33); L14K-GLP-2(1-33); D15K-GLP-2(1-33); N16K-GLP-2(1-33); L17K-GLP-2(1-33); A18K-GLP-2(1-33); D21K-GLP-2(1-33); N24K-GLP-2(1-33); Q28K-GLP-2(1-33); S5K/K30R-GLP-2(1-33); S7K/K30R-GLP-2(1-33); D8K/K30R-GLP-2(1-33); E9K/K30R-GLP-2(1-33); M10K/K30R-GLP-2(1-33); N11K/K30R-GLP-2(1-33); T12K/K30R-GLP-2(1-33); I13K/K30R-GLP-2(1-33); L14K/K30R-GLP-2(1-33); D15K/K30R-GLP-2(1-33); N16K/K30R-GLP-2(1-33); L17K/K30R-GLP-2(1-33); A18K/K30R-GLP-2(1-33); D21K/K30R-GLP-2(1-33); N24K/K30R-GLP-2(1-33); Q28K/K30R-GLP-2(1-33); K30R/D33K-GLP-2(1-33); D3E/K30R/D33E-GLP-2(1-33); D3E/S5K/K30R/D33E-GLP-2(1-33); D3E/S7K/K30R/D33E-GLP-2(1-33); D3E/D8K/K30R/D33E-GLP-2(1-33); D3E/E9K/K30R/D33E-GLP-2(1-33); D3E/M10K/K30R/D33E-GLP-2(1-33); D3E/N11K/K30R/D33E-GLP-2(1-33); D3E/T12K/K30R/D33E-GLP-2(1-33); D3E/I13K/K30R/D33E-GLP-2(1-33); D3E/L14K/K30R/D33E-GLP-2(1-33); D3E/D15K/K30R/D33E-GLP-2(1-33); D3E/N16K/K30R/D33E-GLP-2(1-33); D3E/L17K/K30R/D33E-GLP-2(1-33); D3E/A18K/K30R/D33E-GLP-2(1-33); D3E/D21K/K30R/D33E-GLP-2(1-33); D3E/N24K/K30R/D33E-GLP-2(1-33); D3E/Q28K/K30R/D33E-GLP-2(1-33); and precursors thereof

32. The process according to claim 21, wherein said protein is exendin-3, exendin-4 or analogs thereof and precursors of any of the foregoing.

33. The process according to claim 32, wherein said protein is ZP-10 (HGEGTFTSDLSKQMEEEAVRLFIEWLKNGGPSSGAPPSKKKKKK-NH2).